Chain Store Age
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July 1984

1984 Annual Census of American Chain Stores

Unfriendly takeovers: preparing a battle plan

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***Responsiveness to the consumer** prompted new specialty departments in this remodeled Foodtown.*

Supermarket
Existing stores: Mean: 30,400 sq. ft.
Amount of selling space available in typical store: Mean: 18,500 sq. ft. Median: 19,800 sq. ft.
Stores opened in 1983-84: Mean: 35,000 sq. ft.
Amount of selling space available in stores opened 1983-84: Mean: 25,200 sq. ft. Median: 24,500 sq. ft.
Cost to erect a building shell within last 12 months: Mean: $21.30 per square foot
Source: *Chain Store Age Executive* research

Store formats emerge as competitive weapons

In the supermarket industry, store formats are emerging as the major competitive weapon for the remainder of the 1980's and beyond.

This fact was one of the major messages coming out of this year's annual convention of the Food Marketing Institute (FMI). Its ramifications are seen not only through continuing interest in the newest format, the superwarehouse store (*Chain Store Age Executive*, August 1983), but also through increased use of market research to pinpoint the demographics of specific market areas—and respond accordingly.

As Timothy M. Hammonds, senior vp, FMI, observes, "We can call the 1980's the Decade of Diversity. Shoppers are developing a variety of living styles, shopping patterns and food tastes challenging all of us to keep up."

The resulting "customizing" to meet local market needs is proving to be particularly essential for the conventional supermarket operations (defined by the FMI as those stores with under 30,000 sq. ft.), badly in need of a market niche. In many areas, these stores have found themselves hard-pressed to compete with such formats as the superstores, the combination and warehouse stores.

It's not surprising, then, that the FMI's latest statistics show that during 1983 conventional stores accounted for 76.8% of the stores closed. Superstores (those over 30,000 sq. ft. in size) accounted for 14.6%, while combination stores (combining food and drug operations under one roof) accounted for only 1.2%. The warehouse stores (promoting cut-rate prices and, in general, offering minimal ambience) accounted for 3.4%, while what FMI refers to as limited assortment stores accounted for 4%.

In 1983, 41.2% of new stores were superstores, 31.4% were combo stores, 8.4% were warehouse stores

Compared with 1982, the good news in 1983 was that there were fewer stores closed. However, there were also fewer stores opened and fewer stores remodeled. (In 1983, 4.3% of all stores were closed, 3.7% were opened and 6.3% were remodeled, according to FMI's research.)

In 1983, 41.2% of the new units opened were superstores, 31.4% were combination stores, 16.4% were conventional stores, 8.4% were warehouse stores (almost doubling the prior year's 4.7%) and 2.6% were limited assortment stores.

Hammonds points out that the continuing proliferation of such varying formats is indicative of the fact that "Customers in America have changed their lifestyles. The recession made the warehouse store appealing. The 'save' side of the 'save-and-splurge' two-income household buying pattern perpetuates that appeal."

He adds, "The same families may shop at a warehouse store during the week and at an upscale store on the weekend when they're looking for something special. This brings new formats, hence new forms of competition, into the marketing scene because this industry is nothing if not responsive to customers."

This responsiveness is also being translated into the rapid expansion and addition of specialty departments—including everything from bulk foods to salad bars to extensive service fish and deli shops to expanded scratch bakeries.

Indicative of this trend is the Foodtown Store in Toms River, N.J., recently remodeled by Mayfair Super Markets. One of the goals in this remodeling project was to tailor the store specifically to meet the needs of that particular suburban community—with, for instance, an added sec-

The industry profiles provided in this section include data on the average size of existing and new stores in each of six retail classifications. Information is also offered on how each type of chain is coping with changing market conditions, whether through the construction of new stores, expansion of existing ones and/or full-scale remodeling programs.

For more information circle 13 on reply card.

tion of Italian, Greek and Polish specialties.

The "special" features of this store now include: a bulk foods section; an expanded and modernized meat department; a salad bar; a new service fresh seafood department; an enlarged deli; a self-service bakery; a new floral department; a permanent toy department and a new section featuring stationery and books.

To include the desired wider gamut of departments, supermarkets are growing larger. A remarkably short time ago, stores that were over 35,000 sq. ft. were deemed newsworthy. Now, especially with the growth of the superwarehouse chains, there are frequent mentions of stores in the range of 60,000 to 75,000 sq. ft. (Schwegmann's, the Louisiana-based supermarket chain, even plans to open a 112,000 sq. ft. unit in Baton Rouge in October.)

This trend shows up in the size of the typical new store built in 1983, averaging 38,000 sq. ft. and, according to FMI, averaging $57.69 per square foot to construct. It will be in operation 12 months before it breaks even.

However, as of 1983, the typical supermarket contained 28,000 sq. ft. in total area. Combination stores averaged 45,875 sq. ft. followed by superstores, warehouse stores and conventional stores. ■

Department

Existing stores:
Mean: 138,200 sq. ft.

Amount of selling space available in typical store:

Mean:	Median:
131,500 sq. ft.	105,000 sq. ft.

Stores opened in 1983-84:
Mean: 35,000 sq. ft.

Amount of selling space available in stores opened 1983-84:

Mean:	Median:
86,300 sq. ft.	80,600 sq. ft.

Cost to erect a building shell within last 12 months:
Mean: $26.60 per square foot

Source: *Chain Store Age Executive research*

DEPARTMENT STORE PROFILE

***In most cases, department stores** are focusing on ready-to-wear as expansion targets.*

Remodels target profit areas

Perpetuating a trend that began to pick up speed in late 1982, department stores are continuing to plow the majority of their capital expenditures into remodeling programs that update store looks while increasing the selling space of high profit departments.

No longer a period of heavy new store construction, the 80's will be a decade during which department stores will strengthen their already existing positions in the marketplace, says one store planner.

A combination of high construction costs and lack of new markets is cutting the number, as well as the size, of those new stores that are being built. "If we were to build any more new stores, we'd be in competition with ourselves," says Tom Jewell, manager of visual merchandising at J. C. Penney. His remark is typical.

Other store planners point out that small peripheral departments are being cut out of new store designs in order to limit space, hence, construction costs. "You'll notice that in many new stores piece goods is being cut down as is needlework," cites one director of planning. "Also you'll notice that the book department is disappearing altogether."

A new Hudson's store opened in Battle Creek, Mich., last year tailored its merchandise offerings directly to the market, based on consumer research conducted before the store was built, according to a spokesman for the company. As a result, neither a budget department nor a furniture department was included.

While certain departments are being phased out of some stores, remodeling programs are resulting in the expansion of others. Right now, the spotlight is on ready-to-wear.

"People are spending more money on clothes," says Bill Merchant, divisional vp-store planning and operational services at Woodward & Lothrop, Washington, D.C. "They are going out more and being seen more."

Consequently, the first phase of a two-phase remodeling program for the Montgomery Mall store included the expansion of ready-to-wear and the men's department. The same strategy will be used for the remodeling of the chain's Columbia store.

New York-based Bloomingdale's is also doing extensive remodeling which will increase the selling area of its high profit departments, according to Gabe Nimeroff, director of planning. Its midtown Manhattan store is currently increasing the size of ready-to-wear and "other fashion departments, including better ready-to-wear, cosmetics, high fashion accessories and the men's department," reports Nimeroff. Bloomie's is going so far as to rent office space from other companies so it can relocate its administrative personnel out of the midtown store and convert the space to selling area.

In most cases, before a chain undertakes a remodeling program it assesses certain factors by which it sets its priorities. J. C. Penney, New York, which announced a five-year, $1 billion renovation program last year, looks at four criteria before it determines how extensively to renovate and when, according to Jewell. Those areas are market potential, growth potential, share of market and profit.

Similarly, Dayton Hudson, Minneapolis, has four criteria, according to Charles Zekind, vp-properties. Its first gauge, an annual consumer survey, deals with a variety of topics, in-

For more information circle 7 on reply card.→

cluding physical layout, the ease of finding merchandise, assortment of merchandise and price points.

Second, customer traffic is measured at every store—not just in terms of volume, but patterns as well. This is done through twice-yearly visits to every store by properties teams and first-hand observations elicited from store managers.

Department size and presentation is reported on by merchandise managers, and finally, area competition is assessed.

Based on this information, the chain has opted to remodel two of its Hudson's stores, one in Flint, Mich., as a result of customer feedback, the other in Novi, Mich., as a result of changing market demographics. ■

SPECIALTY STORE PROFILE

The Gap's 1984 expansion plans have been increased to include 60 new units.

Remodels play key role

Business is good and most specialty retailers are actively expanding their store networks, but remodeling plays a key role in the effort to gain and maintain market share.

Jon Hensley, Lerner vp-store planning and construction, asserts that 1984 will be a year with much more remodeling than new construction for his company. "Frankly, there aren't that many new locations," says Hensley. The chain will build 30 new units averaging 6,300 sq. ft. at a cost of $40 per square foot—a figure that includes leasehold improvements and fixtures.

Since Lerner has developed a "whole new prototype" the chain plans to breathe new pizzazz into 270 stores in 1984. The remodels will range from paint and polish jobs for $6 per square foot to major overhauls at $20 per square foot. The program at the 800-unit chain is poised to keep the same pace in 1985. This year's budget for remodeling and new construction is up 50% from 1983, according to Hensley, and 1985's budget will see a similar increase in scale.

Specialty

Existing stores:
Mean: 4,400 sq. ft.

Amount of selling space available in a typical store:

Mean:	Median:
2,400 sq. ft.	2,100 sq. ft.

Stores opened in 1983-84:
Mean: 4,200 sq. ft.

Amount of selling space available in stores opened 1983-84:

Mean:	Median:
3,100 sq. ft.	3,500 sq. ft.

Cost to erect a building shell within last 12 months:
Mean: $20.20 per square foot

Source: *Chain Store Age Executive* research

Lerner is attempting to downplay the look of a mass merchandiser as it seeks to make current locations more productive. There will be fewer high density fixtures—long pipe racks and large capacity circle racks—and more "feature" fixtures to help in merchandising coordinated apparel. The aim is to take the new-style units, with combination carpet and tile floors, dedicated aisles and new colored fixturing, chainwide.

John Weiss, J. Riggins' vp of administration and operations, reports construction costs for new stores range from $40 to $45 per square foot at that chain. The J. Riggins company, which operates both the Proving Ground chain (50 units) and 200 J. Riggins stores, is planning a limited remodeling effort this year. The company will add 12 J. Riggins stores of an average size of 2,000 sq. ft. and about four Proving Ground stores this year. Next year the emphasis will shift to remodeling, with a 25% increase in the 1985 remodel budget.

The strategy behind next year's push to remodel reflects the chain's research on its core customer—the maturing baby boomer. Proving Ground stores will cater to the market that J. Riggins stores once targeted—the 18- to 25-year-old. The J. Riggins stores now aim to appeal to the 21- to 35-year-old age group with a more sophisticated design.

Lerner plans 30 new units for 1984, at an average cost of $40 per square foot for a 6,300-sq.-ft. store

The Gap started 1984 with an expansion plan calling for 35 new stores, and since has upped the plan to include 60 new units. The stores range in size from 4,000 to 8,000 sq. ft. on average, but this year 1/3 of the new units will be Super Gaps from 10,000 to 20,000 sq. ft. In 1985, the plan calls for an additional 50 units, and a new smaller prototype will be tested next year.

The major design changes in the new stores, and the limited remodel program of three or four units in the 550-store chain, emphasize a cleaner, more sophisticated look, according to Mitch Bull, store facilities administrator. Bull comments that, "Growing with the customer is an industry trend," among specialty retailers. Graphics such as orange stripes and hanging globe light fixtures are on the way out, and on the way in are gray and red colors promoted by Miller-Zell.

Morse Shoe has instituted "a real program" after a brief moratorium on new stores and remodels, during last year's corporate reorganization, according to David Williamson, assistant vp, director of construction. The chain will add 25 3,000-sq.-ft. units to the Fayva division in 1984 at a cost of $35 per square foot. The cost includes

building materials, construction costs and fixturing. The planned units will be built in Chicago, Detroit, New York, New Jersey and various New England locations in a combination of malls, strip centers and downtown locations. Williamson says, "The real estate people are projecting about 50 new stores in 1985."

Morse plans to remodel 60 units in 1984 and an additional 100 units in 1985. The remodeling costs are running very close to the cost of building a new store, according to Williamson, in this all-out effort to bring the 700-store chain up to snuff. "The old stores were completely outdated," says Williamson. "This is the first attempt to make changes. The remodeled stores are being brought up to the same standard as the new stores."

The new Fayva stores will feature more photographic graphics than signage; updated lighting systems including track lighting, parabolic lights, and spot wall lighting. The color scheme is muted with gray, white and brown tones. ■

Discount

Existing stores:
Mean: 60,900 sq. ft.

Amount of selling space available in typical store:

Mean:	Median:
41,200 sq. ft.	39,200 sq. ft.

Stores opened in 1983-84:
Mean: 72,200 sq. ft.

Amount of selling space available in stores opened 1983-84:

Mean:	Median:
53,900 sq. ft.	50,000 sq. ft.

Cost to erect a building shell within last 12 months:
Mean: $18.60 per square foot

Source: *Chain Store Age Executive* research

DISCOUNT STORE PROFILE

***Discounters like Zayre** must fine-tune pricing and renovate stores in the next decade.*

Discounters' remodels stress quality, productivity

Discount retailing chalked up estimated revenues in excess of $60 billion in 1983. It's an industry that shows the classic symptoms of maturity. Lower levels of demand growth from a changing consumer market are challenging discounters to a market share battle with traditional and new competitors.

Discounters are stressing value to the quality/price perceptions of their customers. These retailers are remodeling their stores in an effort to make existing spaces more productive and to communicate an image of value.

Malcolm Sherman, president of the 280-store Zayre chain, commented recently that the discount industry is facing serious challenge years. "Sales and profit increases will be harder to come by in the future because new store growth will not be there," he said, and that as markets become saturated, "barracudas" such as catalog showrooms, home centers, convenience and specialty stores will be battling for market share.

Sherman stresses that the paramount task discounters face in the next decade is to fine-tune pricing and renovate stores. "Real estate realities will cause the well-done smaller specialty stores to proliferate. Space productivity will improve and predictability of performance will be more important than drama and risk in merchandising," says Sherman.

Ames Department Stores took a leap from 118 stores to 168 stores in 1983 through the acquisition of some former Kings stores. Herbert Gilman, chairman, recently outlined that chain's aggressive remodeling program. Ames remodeled about 25 stores in 1983 and will perform the same number of overhauls this year and next.

The stores, which average 47,000 sq. ft., "have consistently shown sales increases of 30% or more during the first year after remodeling. Thereafter sales increases were commensurate with other stores," says Gilman. In fact, one remodel chalked up a 45% sales increase when it was expanded from 32,000 sq. ft. to 42,000 sq. ft.

Those sales increases mean that the cost of these remodels is paid back "well within two years," says Gilman.

The cost of remodeling an Ames store, depending on local conditions, ranges from $250,000 to upward of $400,000. The productivity at one Massachusetts store went from $2 million three years ago to $5.8 million for 1983. And Gilman predicts that the Service, Mass., unit will do $7 million in 1984.

Marshalls, the 137-store off-price chain, is launching a massive remodel program this year. Dennis St. John, vp-construction, estimates that the project will cost close to $40 million. The work, which started early this summer, is still in the planning stage. Eventually it will involve approximately 84 of the stores and at least nine of the stores will be completed before year end.

Alco Discount Stores, a division of Duckwall-ALCO, is undertaking a major remodeling program this year for 22 of its stores. Fred Stroud, manager of store fixturing and design, points out that the overall cost will be moderate.

The reason, says Stroud, is that to a large extent, "We'll be using existing materials and reworking them." Gondolas are being raised from 54 in. to 56 in., and the bases of the gondolas are being narrowed to 3 ft. from 4 ft. The aisles will remain the same size, but the stores (ranging in size from 27,000 sq. ft. to 55,000 sq. ft.) will

have space for more gondolas. New signage will be added.

Stroud commented that the remodel program is more aggressive than last year, when the 127-unit chain remodeled five stores. He says that the lion's share of Alco's remodels have been spurred by recent acquisitions. This year, for example, Alco bought four Davis Stores in Wichita, Kan. And last year Alco acquired the Magic Mart chain; six of those 40 stores will be refurbished.

Fred Meyer, a 70-unit, Portland, Ore.-based chain, recently completed about 10 minor remodels and will complete three extensive remodels in 1984. According to Lewis Ketch, remodel design and development manager, the major overhauls cost "at least $2 million per store and can cost up to $4 million."

Ketch maintains, "We always had a strong emphasis on remodeling," and says that Fred Meyer will spend about $10 million chainwide on remodeling in 1984. But, according to Ketch, the lifespan of Fred Meyers' remodels seems to be lengthening. "We used to say 10 years, but some of the stores haven't been remodeled for 20 years or more."

Productivity at a remodeled Ames store went from $2 million three years ago to $5.8 million for 1983

Ketch explains that stores in more isolated suburban locations are closer to being laboratory situations where space can be added. The emphasis often falls on suburban locations because those stores face heightened competition. Specifically, Ketch says that K mart, J. C. Penney and Sears put presssure on general merchandise areas; Albertsons, Safeway and the box stores give Fred Meyer a run for the money on food.

Over the past few years, Gold Circle, a 51-unit, Worthington, Ohio discounter, has worked on two or three remodels a year. That completed most of the major remodeling Gold Circle needed to bring its stores up to par. Gold Circle's stores are an average of seven or eight years old and the oldest store in the chain is only 14 years old.

Daniel O'Harra, vp-properties and administration, says that the main thing that Gold Circle considers in targeting a remodel is the age and look of a store. But he adds that keeping a strong market presence by keeping a store looking fresh is an important consideration. The average lifespan of a major remodel is 10 years at Gold Circle. ■

DRUG STORE PROFILE

Maintaining a steady pace

Once again, in 1984, the nation's leading drug store chains are showing that they're as dependable as the sun rising in the East. Having come through the recession hardly missing a beat in their capital expenditures, they're carrying through on ambitious new construction and remodeling slates for this year and beyond.

Take Rite Aid, for instance. Having finished fiscal 1983 (ended Feb. 26) with 1,148 locations, Rite Aid has made plans to open another 90 new stores in the current year. Yet its remodeling plans are even more ambitious—as some 107 older stores await facelifts.

Peoples, the 575-store chain based in Alexandria, Va., is also going ahead with a hefty construction schedule. The chain plans to launch 60 new stores this year, aiming for a new gain of 55, or just under 10% of its current roster. Like Rite Aid, however, Peoples is not placing all its chips on new units. As part of a long-term plan to convert its various drug store divisions to the Peoples logo, 1984 plans call for the installation of the Peoples decor package in 43 Haag outlets in greater Indianapolis.

Walgreens' plans are in the same mold. In fiscal 1983, ended Aug. 31, Deerfield, Ill.-based Walgreens opened 67 drug stores for a total of 941. Some 80 new outlets are lined up for the current year, including four locations in New York City—an area the chain had been de-emphasizing over the last decade.

Last year, 55 Walgreens units were remodeled, and this year, there are 70 stores in line for facelifts. The bill? About $22 million, as compared with the $51 million that has been earmarked for new construction.

Smaller chains have formulated diverging strategies, however, leaning either toward new stores or remodels, depending on the age and condition of existing units, and the opportunities that await in their markets.

Adams Drug, Pawtucket, R.I., is a chain that grew through a series of acquisitions, and in the past, remodeling was not a priority. But that's changing. In 1983, for instance, Adams opened only six new units, shuttered no less than 39, and invested in 48 remodels. About a third of those remodels were conversions to the Brooks name and layout—the preferred store design for both new and overhauled outlets.

Thrifty, based in Los Angeles, is another chain dedicated to remodeling. Its long-range goal is to recast the entire roster in the mold of what management has dubbed its "Perfecto" prototype. By August 1984 (the end of Thrifty's fiscal year), about 320 of the chain's 540 outlets will have been converted to the 18,000-sq.-ft. Perfecto format—including 49 such conversions in the current year. Thrifty

Drug

Mean: 13,700 sq. ft.

Amount of selling space available in typical store:

Mean: 10,500 sq. ft. Median: 8,400 sq. ft.

Stores opened in 1983-84:
Mean: 19,500 sq. ft.

Amount of selling space available in stores opened 1983-84:

Mean: 12,300 sq. ft. Median: 9,800 sq. ft.

Cost to erect a building shell within last 12 months:
Mean: $34.60 per square foot

Source: Chain Store Age Executive research

Drug chains' aggressive remodel and construction programs continue in 1984.

For more information circle 18 on reply card.

plans to open only 18 new stores in the same period.

Other chain drug operators, by contrast, are spending the bulk of their budgets on new construction. Longs Drug, Walnut Creek, Calif., for instance, is beefing up its new-store slate considerably, as management plans to open 13 drug stores in the fiscal year ending January 1985. The cost? According to one Longs exec, the lion's share of $36 million in budgeted capital expenditures will be devoted to these openings.

That's a far cry from last year, when the chain opened only seven new units—and two of those were replacements for existing stores. Capital spending in fiscal 1984, ended Jan. 26, totaled $27 million, but some of that was used to fund the chain's pharmacy computerization program and other projects. In fact, by early 1986, Longs will have spent some $10 million to install computers in its pharmacies.

Unlike many chain drug store operators, Longs does not adhere to a single prototype for new construction. "Our stores average 25,000 to 26,000 sq. ft.," says Richard Scott, executive vp, "but we're now building stores that are less than 25,000 sq. ft. and more than 30,000 sq. ft. We will adjust to good sites. We will not miss out on excellent opportunities" because they don't fit a given store-size scheme. ■

HOME CENTER PROFILE

Home Depot reports sales of $256 million, an increase of 117% over fiscal 1983.

Warehouse tidal wave rolls on

Warehouse home centers continued to multiply and change the look of the retail home improvement industry in 1983.

At year end, there were 47 high-volume warehouse outlets across the country operated by 11 chains—compared with only eight warehouse stores at the end of 1982. *National Home Center News*, a Lebhar-Friedman publication, predicts nearly 150 warehouse stores will be operating before 1984 is over.

One of last year's success stories is Home Depot, which debuted its first two units in an Atlanta suburb only five years ago. At the end of its fiscal year, Jan. 29, 1984, the warehouse chain had grown to 19 stores with sales of $256 million, an increase of 117% over the previous year.

Significantly, Home Depot, traded over-the-counter since going public in 1981, was listed on the New York Stock Exchange in April, perhaps signaling to Wall Street that the high-volume, low-margin formula will be a long-lasting phenomenon.

Home Center

Existing stores:
Mean: 28,400 sq. ft.

Amount of selling space available in typical store:
Mean: 17,600 sq. ft. Median: 14,600 sq. ft.

Stores opened in 1983-84:
Mean: 35,900 sq. ft.

Amount of selling space available in stores opened 1983-84:
Mean: 26,200 sq. ft. Median: 23,900 sq. ft.

Cost to erect a building shell within last 12 months:
Mean: $30.10 per square foot

Source: *Chain Store Age Executive* research

Healthy sales increases and profits were the rule for the entire home center industry last year, which was propelled by the upturn in housing starts and consumer spending.

The nation's top 100 home center retailers posted a 23.7% sales boost to $14.6 billion in 1983 compared with the $11.8 billion sales generated the prior year. These largest DIY chains operated 4,259 stores at the end of 1983, an increase of 55 units from year-end 1982.

Judged by total sales, the industry leader is Lowe's, North Wilkesboro, N.C., which generated $1.4 billion at its 238 units, followed by W. R. Grace, the New York parent of seven DIY chains with 286 outlets which hit the billion dollar mark in total sales for the first time in 1983.

Ranked by store locations, 84 Lumber—based in Eighty-Four, Pa.—continued to be the largest chain in the industry, with a net gain of 14 units to end the year with 384 stores.

While industry observers seemed preoccupied with the warehouse retailing strategy, sales growths last year were logged by chains with much different operating philosophies.

Payless Cashways, a full-line building materials specialty retailer, at year end operated 118 Payless Cashways, Furrow and Lumberjack facilities in 15 states. Payless, headquartered in Kansas City, Mo., is growing by acquisition of existing DIY chains as well as new store construction. Its 1984 budgeted capital expenditures is approximately $80 million. Payless' 1983 sales were $865 million, a 43% increase over the earlier year, and its store count jumped by 18 units.

Meanwhile, some traditional full-line center operators jumped aboard the warehouse bandwagon last year. Pay 'n Pak, a 100-unit chain based in Kent, Wash., has converted several stores to a higher-gondola warehouse configuration, and in late May opened a mammoth warehouse in Honolulu that required $12 million in site costs and improvements.

W. R. Grace has outfitted about half of its Handy City and Handy Dan stores, averaging about 35,000 sq. ft., with warehouse-style racking.

Builders Emporium, the southern California-based division of Wickes Cos. (now expected to emerge from its Chapter 11 bankruptcy proceedings by year's end) is also experimenting with warehouse retailing at its 60,000-sq.-ft. superstore in Tustin, Calif. The 56-unit DIY chain is one of several in the competitive California market gearing up for battle with the ongoing arrival of low-margin warehouse operators. ■

Best's showrooms maintain a uniform look using banners with silkscreened department names.

Design packages establish image in graphic detail

"One of the most cost-effective ways of creating an image in a store is through graphics. It will certainly cost you a lot less than architecture," says Kenneth Walker, president, Walker/Group, New York, an independent design firm.

Walker's comments should be taken to heart in this time of heavy expenditures on store remodeling. His comments illustrate the importance of a store's total graphic package, which includes signage and other graphic representations.

"Depending on the level of the store—starting with a drug or mass marketer at the low end, all the way up to a higher end specialty store—the relationship between graphics and the overall design becomes more important," Walker observes. "For example, for a mass marketer, graphics can make or break the store. In a department store or specialty store, graphics can add a touch of personality but are usually not the dominant feature."

A successful graphics package, in Walker's opinion, is one in which the signage, advertising and merchandise bags all work together. "And if you have a strong graphic program, you'll have a strong retail identity."

Getting a fix on how to execute that identity through signage can be tough. "People use so many different philosophies, and that changes with the times and with the image you try to maintain with the customer," notes Robert Brusa, assistant vp, director store planning and construction at Ames Department Stores, Rocky Hill, Conn.

His company, like many others, has been struggling to find a happy medium between "sign pollution and sterility." What it has come up with is 17 major wall signs for department identification and 21 subdepartment and informational hanging signs.

"From a readability, cleanliness point of view," Brusa continues, "I'm quite convinced that a light letter on a dark background is far more readable, brighter and clearer." As a result, Ames is going with off-white styrofoam lettering on a red background.

Styrofoam is still the most widely used material, according to interviews conducted with store planners. James Cline, director of store planning for Ribordy Drugs, Valparaiso, Ind., offers some insight: "They [styrofoam signs and letters] are easy to install, more durable than you would expect and readily available on a stock basis in many different styles. Styrofoam is cheaper than other materials and so light that you don't need any major fastening to keep them on the walls."

Granted, he admits, Styrofoam is not as durable as wood—but with the frequency that stores are remodeled, "you don't need 20-year durability."

"Signage," says Cline, "is the finishing touch when it comes to interior decor." Unfortunately, one important aspect of signage, as well as interior decor, is not given the attention it deserves, as Cline sees it.

"I don't think we're responsive enough to color trends. Sometimes the average retail unit is so far behind that we miss trends, especially drug stores.

"We are learning how important color is; it's much more important than people realize. Colors are not often understood as a merchandising tool; they're taken for granted. There's usually too much personal taste of the company in their selection and that's not always good design practice."

Walker has his own pet peeves

Cost per square foot for interior signage

	Total	Discount	Drug	Supermarket	Department	Home Center	Specialty
(Bases)	(164)*	(30)*	(28)	(26)*	(25)	(29)*	(26)*
	%	%	%	%	%	%	%
Less than $0.15	44	37	43	23	60	52	50
$0.15-$0.25	20	23	21	15	24	24	12
$0.26-$0.50	14	17	21	27	—	10	8
$0.51-$0.75	5	7	4	12	4	7	—
$0.76-$1.00	4	—	4	12	—	3	4
$1.01-$2.00	1	—	—	—	—	—	4
$2.00+	3	7	—	4	4	—	4
Not applicable	1	—	—	—	—	—	8
Don't know/ no answer	8	10	7	8	8	3	12
(MEAN)	(0.30)	(0.37)	(0.23)	(0.44)	(0.24)	(0.21)	(0.34)

*Does not equal 100% due to rounding.

Source: *Chain Store Age Executive* research

Information included in the physical support systems section of this Census Issue examines the latest materials developments and the costs and lifespans of these materials. The average costs of particular support systems are presented by relevant retail categories.

Lifespan of interior signage

	Total	Discount	Drug	Supermarket	Department	Home Center	Specialty
(Bases)	(176)*	(30)*	(30)	(30)*	(29)*	(30)*	(27)*
	%	%	%	%	%	%	%
4 years or less	19	7	17	7	38	27	18
5 years	20	27	13	17	17	27	18
6-9 years	14	10	20	33	7	10	4
10 years	22	40	23	27	3	13	26
11 years or more	11	7	10	10	10	17	11
Forever	2	7	—	—	—	—	7
Not applicable	3	—	7	—	3	—	7
Don't know/ no answer	7	3	10	7	21	7	7
(MEAN)	(9.9)	(14.6)	(7.4)	(8.2)	(5.3)	(7.8)	(5.5)
(MEDIAN)	(7.5)	(10.1)	(8.3)	(8.8)	(4.0)	(5.8)	(10.0)

*Does not equal 100% due to rounding. Source: Chain Store Age Executive research

about the shortcomings of interior graphics. "The worst thing a store can do right now is think that putting up photographs everywhere is going to create an image. That's the kiss of death for a smart retailer; everybody's doing it. Every store's starting to look the same." The biggest offenders are supermarkets, says Walker. "You buy photographs by the yard for supermarkets."

Instead, his firm is trying to combine the function of signage with the impact of unusual graphics through the use of silkscreening. The medium offers more flexibility and creativity. Best Products, a Richmond, Va.-based catalog showroom chain, has found that silkscreened banners give it "a more upgraded look," according to Dawn Haddon, showroom planning coordinator.

"Our image is somewhere between a discounter and a department store," she explains. "Discounters go for more aisle markers and category signs; department stores go for less signage and let the merchandise speak for itself."

Best uses a combination of category signs and operational signs, "because a lot of people don't know how to shop a catalog showroom."

The showrooms maintain a uniform look throughout, using hanging fabric banners with the department names silkscreened onto them, although, Haddon points out, "we use more graphics as opposed to words in the toy and sporting goods departments."

With the countless signage and graphic options open to store planners, what is the best route to take while avoiding the pitfalls?

"Create your own format, one that's unique to your store," advised Walker. "With some sensitivity to graphic design, you can do well. It can be just beautiful type treatment, or illustration, or imagery of various sorts. Just hire some good graphic designers and turn them loose." ■

INTERIOR LIGHTING

New illuminating attitudes

Creativity. Experimentation. Change. These words aren't normally associated with retail lighting. But, surprisingly enough, they sum up the current attitude of store engineers and store planners when it comes to illuminating stores.

Certainly they are still paying close attention to the three major roles of lighting in merchandising: making certain that the light serves to attract the customers; providing enough light for close appraisal of the merchandise, and creating the desired store atmosphere. Energy cost considerations, of course, continue to play a major role in lighting decisions.

Yet, they aren't taking their old choices for granted. Instead, there is an obvious willingness to experiment to find what may very well prove to be the better choice.

"There is no question that retail chains are becoming more sophisticated when it comes to their interior lighting," says Frank LaGiusa of General Electric. "They recognize that using the old super simplistic methods are giving them no competitive edge in differentiating their stores from others in their market. They realize that they have got to be smarter in the way they do it, especially since the old ways were often too inefficient."

Nowhere is this trend more apparent than in the supermarket industry. During the past several years, and over the last 12 months in particular, chains across the country have been waking up to the fact that store image, promoted primarily through store decor, is their best weapon to not only expand market share but also to hold onto what they have.

Specifically, in responding to shifting demographics in many market areas and while joining in the upgrading trend taking place throughout the retail industry, supermarket operators have been busy adding a variety of new departments.

One-stop shopping has come to the supermarket industry through the increased availability of nonfood merchandise, health and beauty aids, fresh fish departments, service delis, in-store scratch bakeries, lavish floral departments, expanded book and card sections and whatever else management's imaginations devise.

Color rendition is a major factor in choosing overhead lighting fixtures.

A chief example is the Waldbaum's supermarket chain, headquartered in Central Islip, N.Y. Waldbaum's has been intent on getting rid of many of its older stores while coincidentally developing a more flexible format.

At its new store in Long Beach, New York, for instance, Waldbaum's has created what it refers to as a megamarket. The name is used not because of the store's size but because of the products and services it offers. These include an in-store bakery, custom meat departments, a salad bar and a fresh flower department.

This particular store is 45,000 sq. ft., although Waldbaum's has already opened a number of stores at the 60,000 sq. ft. level and has even larger ones on the drawing board.

The attitude when planning each of these stores is that "lighting is a very important part of the whole presentation," says Robert Levine, director of architecture. "We want to highlight each department in the best way possible and I've found that one of the key elements is using different types of fixtures and lamps throughout the store." These can include industrial-type fixtures, canopy lighting and whatever else Levine and his staff come up with.

Managing to obtain the more efficient and effective use of these fixtures through placement and the right combinations "is definitely a science, but we have found that by experimenting we have been able successfully to accomplish many things," says Levine.

"Certainly, though, doing more with lighting adds considerably to the overall costs, but at Waldbaum's the decision to move in this direction was based upon the design of our stores and our feeling that lighting was absolutely essential to the direction in which we have been moving."

He adds, "Decor is a part of a store's identity and creating a store identity is now integral to a store's success."

That's a lesson that's also been learned by store designers in many other areas of retailing, including the discount store field. As Heck's, the discount store chain headquartered in Charleston, W. Va., remakes the image of its stores, updating the lighting is playing a major role. Here, improving maintenance is key.

According to Ben Shew, Heck's energy manager, the chain is taking steps to improve its lighting in a number of ways. First, "We are scheduling relamping to improve the light, to reduce the cost of maintenance and thereby to increase the overall lighting efficiency," he says.

As a result, "Through relamping we have been able to reduce the number of fixtures on the ceiling by about one-third, while still maintaining the level of lighting at 80 footcandles which is sufficient for merchandising."

He adds, "The level had been about 120 footcandles without the maintenance program, and with it, the level would be well above that—there would be far too much glare. But what we have done is move from 8-ft. centers on the fixtures to 12-ft."

Another step aimed at improving the efficiency and lowering the costs of lighting is that "At our fluorescent-using stores, we have put in some wattage reducers, still making sure to maintain 75 to 80 footcandles."

In stores where mercury vapor lighting is still in use, says Shew, "We are testing a program of converting 400 watt mercury lights to 175 watt metal halide. This reduces the energy costs, maintains good footcandle levels and improves color rendition."

Shew adds that "We are just entering into a contract for one store and this will give everyone a chance to look at it. We have 35 stores still with mercury vapor and we expect that we will eventually change over all of them."

In developing a more flexible format, Waldbaum's uses different types of fixtures and lamps throughout

When it comes to fluorescents, Shew is well aware that "There has been quite a bit of change in the technology and we are looking at the possibility of improving the color rendition in all of our stores. I am going to propose that we do a test with some of the newer lamps and fixtures.

"The manufacturers in some cases are still asking a premium for these products," he says, "but I think we will eventually convert to them if cost is not too much of a problem."

Improving color rendition is also very much on the mind of Jim Cline of Ribordy Drugs. Although his chain continues to use standard fluorescents, "There are obviously more efficient, less expensive fixtures to use. But the big hang-up in not going to metal arc or in not going to high-intensity discharge is that those products are still in a state of flux. There has also been a problem in that some people don't like the color quality of those products."

He says that "The situation is similar to what happened when people went from incandescent to fluorescent—people didn't like the color quality then either. But I think that metal arc is much closer to fluorescent than fluorescent was to incandescent. It's just a matter of time until people move in that direction."

LaGiusa points out that "Today low voltage lighting is becoming more widely understood. In addition, everyone now is interested in upgrading their stores, but they don't want to upgrade so much that it is a turn-off to customers. They are being careful in their lighting choices." ■

Cost per square foot for interior lighting

	Total	Discount	Drug	Supermarket	Department	Home Center	Specialty
(Bases)	(159)	(30)	(25)	(28)	(24)*	(29)*	(23)*
	%	%	%	%	%	%	%
Less than $0.15	8	10	4	4	8	17	—
$0.15-$0.25	14	13	16	—	—	41	13
$0.26-$0.50	13	17	20	11	8	10	13
$0.51-$0.75	6	—	4	11	4	7	9
$0.76-$1.00	7	10	4	14	8	—	4
$1.01-$2.00	23	30	20	39	25	7	17
$2.01+	12	3	12	7	21	7	26
Not applicable	1	—	—	—	4	—	—
Don't know/ no answer	16	17	20	14	21	10	17
(MEAN)	(0.96)	(0.85)	(0.92)	(1.15)	(1.31)	(0.48)	(1.22)

*Does not equal 100% due to rounding. Source: *Chain Store Age Executive* research

Lifespan of interior lighting

	Total	Discount	Drug	Supermarket	Department	Home Center	Specialty
(Bases)	(180)	(30)	(30)*	(30)*	(30)	(30)*	(30)
	%	%	%	%	%	%	%
3 years or less	16	27	37	7	3	13	10
4-9 years	17	3	17	10	17	33	20
10 years	21	17	13	27	20	17	33
11-15 years	16	27	17	10	20	13	10
16-20 years	18	20	10	30	23	20	7
21 years+	4	3	—	7	7	3	3
Forever	3	3	—	3	3	—	7
Don't know/ no answer	5	—	7	7	7	—	10
(MEAN)	(14.1)	(14.8)	(8.0)	(17.0)	(16.9)	(10.5)	(17.7)
(MEDIAN)	(10.7)	(11.6)	(7.6)	(12.7)	(12.7)	(10.2)	(10.4)

*Does not equal 100% due to rounding. Source: *Chain Store Age Executive* research

←For more information circle 22 on reply card.

Estimated cost per square foot for fixtures

		Total		Discount		Drug		Supermarket		Department		Home Center		Specialty
	(Mean Base)		(Mean Base)		(Mean Base)		(Mean Base)		(Mean Base)		(Mean Base)		(Mean Base)	
Showcases	(116)	$5.58	(21)	$5.45	(20)	$2.59	(15)	$2.20	(24)	$7.79	(17)	$1.16	(17)	$12.68
Gondolas	(126)	5.15	(22)	3.42	(25)	3.57	(24)	2.94	(17)	8.09	(24)	5.50	(14)	10.11
Glass cubes	(82)	4.10	(19)	2.89	(14)	3.27	(2)	0.75	(22)	6.15	(16)	1.06	(9)	9.08
Small racks for accessories	(131)	3.60	(22)	2.32	(22)	1.88	(19)	1.25	(22)	5.93	(23)	1.75	(23)	8.12
Large racks for apparel	(95)	3.44	(20)	2.48	(9)	3.72	(14)	1.57	(24)	5.57	(18)	1.78	(10)	5.60

Source: *Chain Store Age Executive* research

Success with fixtures generates more sales

Store planners aiming to utilize retail space efficiently are placing more emphasis on fixture design as they strive to expose as much merchandise as possible to shoppers.

The planners are devoting less square footage to storage/receiving areas and attempting to boost sales by placing more merchandise on the sales floor.

The effort to "maximize the cube"—efficient use of the building's retail space—is prompting some retailers to re-examine their long-time fixturing programs. According to several fixture manufacturers, just as merchandise needs updating, store fixtures do also.

Some retailers, however, decide that to amortize their investments in this physical support system category, they must hold onto fixtures even when they have worn out. Fixtures have lifespans: The range is eight to 12 years, some fixture makers estimate.

At Zale Corp., the Dallas-based jewelry chain, a solution to the problem of what to do with outdated fixtures has been found. (The corporation, which has 1,554 jewelry stores in the United States, Europe and Japan, reported 1983 sales of $1 billion.)

Zale recycles its fixtures. When Zale closes a store, it ships the fixtures to a refurbisher under contract to the company. They are overhauled and placed in a Nevada warehouse. The redone fixtures are usually returned to company stores "where the budget is an important criteria"—usually secondary markets, says Brent Kimball, Zale store designer.

Standardization in Zales' program contributes cost-control efficiencies, says Kimball

One example, he continues, was the relocation of a Zale unit in a Topeka, Kan., shopping mall earlier this year. "The store was in-line and we had an opportunity to move to a corner location," Kimball explains. "We used refurb fixtures in that new store."

Zale's primary fixture supplier is Storecraft Manufacturing, Beatrice, Neb. The stores average 1,200 sq. ft., including a small stockroom and office where customers make credit purchase arrangements. The main fixtures are modular glass showcases for both display and storage of jewelry. Floor-to-ceiling wall displays are also incorporated into the design.

The showcases, which Kimball says "take the most abuse," are designed to be put together in different configurations. He adds, "We can take a case in New Jersey, refurbish it and use it in a Florida store." The cases are durable. "The hardware on drawers and the glass need replacing periodically," Kimball acknowledges, "but the stainless-steel legs never wear out. We use oak for the cases and about the worst that can happen is cigarette burns."

This year Zale will open about 150 new or retrofitted stores and close another 80 units. Kimball says that Zale never makes radical changes in its fixture program, a standardization that contributes cost-control efficiencies to the company.

An innovative approach to utilizing fixtures to enhance a store's contemporary look is under way at Lerner Shops, the 800-unit chain of moderate-priced women's ready-to-wear apparel.

Designer Ken Walker says Lerner units previously contained "a sea of

Lerner plans to renovate or open 200 stores this year with newly designed fixtures.

Lifespan of fixtures

	Total	Discount	Drug	Supermarket	Department	Home Center	Specialty
(Bases)	(180)*	(30)*	(30)*	(30)*	(30)	(30)	(30)
	%	%	%	%	%	%	%
7 years or less	16	20	10	7	27	7	27
8-9 years	16	3	10	20	23	10	27
10 years	28	47	23	30	20	33	13
11-19 years	24	23	30	27	23	27	13
20 years or more	8	3	10	—	—	23	10
Forever	3	3	3	10	—	—	3
Don't know/ no answer	6	—	13	7	7	—	7
(MEAN)	(14.1)	(13.2)	(14.9)	(19.9)	(8.9)	(13.9)	(14.1)
(MEDIAN)	(10.6)	(10.6)	(11.0)	(10.7)	(9.7)	(11.0)	(9.5)

*Does not equal 100% due to rounding. Source: *Chain Store Age Executive* research

racks and no focal point." Such emphasis on racks, Walker believes, "only works for the very lowest end of the marketplace.

"Value used to be defined as price and quality," Walker continues. A store jammed with apparel racks may have good prices and quality merchandise, but if "everything looks better through presentation, that translates to value in the customer's mind," Walker says.

Walker custom-designed a grid-like fixture about 8 ft. wide that reaches from floor to ceiling. The Lerner stores, which average 7,000-9,000 sq. ft., each have six to 10 grid fixtures. Walker says they are permanently affixed right off the main aisle and "form focal points as you walk down the aisle." Attached to the black-painted metal fixtures, depending on store location, are shelves, bins, graphic panels and photographs.

"There are still a lot of four-ways and racks," Walker notes. But he says the grid-like fixtures allow customers to see merchandise "in isolation, whereas in a sea of racks everything starts to blend in with everything else."

Lerner tested the Walker-designed racks in 10 stores in 1983 and is renovating or opening about 200 stores this year with the new fixtures. The remaining units will be revamped in the next three to four years, Walker says.

Adaptability is a key focus of many retailers as they attempt fast-track expansion plans. Claire's Boutique, the 216-unit specialty chain based in the Chicago suburb of Bensenville, Ill., plans to open 40 new stores this year and approximately 80 in 1985, reports James Saum, construction manager.

The 600- to 700-sq.-ft. stores sell low-end costume jewelry, purses and handbags. Saum says that Claire's Boutique has gone to a "much more flexible" slotted wall merchandising approach. Previously, perimeter walls were outfitted with plywood panels containing horizontal grooves in which pegs were permanently affixed.

"Before, to keep up with style changes, it required a carpenter, a new fixture and store renovation," Saum says. "Now, slot wall gives us versatility—we can totally move the store around. What's on the right side this week can be on the left side next week."

Claire's Boutique uses a slot wall manufactured by Perma-Groove, Minneapolis. The light gray-colored wall consists of a sheet of MDF board coated with Formica. The slot wall is situated along the store's perimeter.

The specialty chain also uses a custom-designed Plexiglas jewelry display made by Fixture Hardware, Chicago. These fixtures attach to the slot wall. Three display tables containing two tiers each are positioned on the sales floor.

Saum says that the cost per square foot of fixtures at Claire's is lower than the industry average. He reports that fixtures cost in the range of $4,800 to $5,800 per store. Some 30 to 40 stores are remodeled each year, with the total cost of interior work, not including new fixtures, approximately $10,000, he says.

Radio Shack, the retailing arm of Fort Worth-based Tandy Corp., is also using a slot wall fixture for its new telephone stores. The fixture is manufactured by the commercial division of Masonite Corp. Radio Shack designers chose a gray and red color scheme—a gray high-pressure laminate finish and red burgundy stripes in the slotted grooves—to emphasize a sophisticated, contemporary look that they hope will appeal to the business customer. ■

SHOPPING CARTS

Variations accommodate specific retailer needs

When it comes to just about every aspect of the shopping experience, consumers are becoming pickier—and that applies to shopping carts, too. Consequently, they are no longer being taken for granted.

Models shown at the recent Food Marketing Institute annual convention served to highlight the latest trends. Certainly there were the "standard" steel versions, but there was also a wide range of variations to accommodate specific shopping needs.

For example, the very existence of the superwarehouse store is helping to cause a revolution of sorts in the industry. With consumers reportedly shopping these stores fewer times per month than they do conventional formats, they are out to buy more goods per visit. Consequently, they need larger carts—and the industry has responded.

However, shopping carts are heavy to begin with, ranging anywhere up to 45 lb. Bigger carts became heavier still, but manufacturers are attempting to do something about it. The answer: using plastic materials.

An added benefit of plastic, point out both retailers and manufacturers, is that these carts are also often easier to maintain than the all-steel versions, especially since they avoid the problem of rust.

Capacity, construction of the cart and type of wheels are the major criteria for buying shopping carts

In addition, consumers are reportedly responding well to the plastic carts, fearing less damage to automobiles from carts left on parking lot grades.

The major criteria for buying carts include the space capacity, the construction of the cart and the type of

Consumers shop fewer times per month, buying more items per trip and need more versatile carts.

Average cost of shopping carts purchased during last 12 months

	Total	Drug	Supermarket
(Bases)	(60)* %	(30) %	(30)* %
$25-$50	18	30	7
$51-$75	32	33	30
$76-$99	27	7	47
$100+	7	13	—
Don't have	10	10	10
Don't know/ no answer	7	7	7
(MEAN)	(71.56)	(66.80)	(76.32)

*Does not equal 100% due to rounding.
Source: *Chain Store Age Executive* research

Lifespan of shopping carts

	Total	Drug	Supermarket
(Bases)	(60) %	(60) %	(30)* %
4 years or less	38	47	30
5-9 years	28	13	43
10 years or more	15	20	10
Forever	2	—	3
Don't know not applicable	17	20	13
(MEAN)	(7.6)	(5.7)	(9.3)
(MEDIAN)	(5.6)	(4.9)	(6.5)

*Does not equal 100% due to rounding.
Source: *Chain Store Age Executive* research

wheels.

In addition to the increased acceptance of all-plastic carts, retailers are also responding favorably to such "new" types as vinyl-coated steel and nylon-coated steel construction.

The fixture buyer at various chains continues to specify most of the shopping cart choices—usually submitting the products to rigorous testing. Manufacturers and retailers both point out that careful evaluation has become particularly important in view of the rising costs of shopping carts.

According to *Chain Store Age Executive*, the average cost of shopping carts purchased during the last 12 months by supermarket operators was $76.32.

In the drug industry, another large user, the average was $66.80, reflecting the smaller sizes used by this class of trade. ■

ROOFING

Ideal roofing material still subject of much controversy

The controversy among store planners and construction execs over what is the "ideal" roofing material still goes on, and is likely to continue for many years to come.

Weather conditions and the availability of qualified labor are two factors that vary from region to region, making it difficult for any roofing expert to make an across-the-board evaluation and recommendation of any single material. Also, conditions affecting the choice of a replacement roof vary from building to building, depending on the condition and weight of the existing roof.

Chain Store Age Executive's 1984 retail census shows that, despite the proliferation of roofing options, the majority of retailers (51%) are still avoiding the untested waters and are sticking with the conventional built-up roof (BUR).

Following BURs in popularity this year are single-ply roofs at 23%, metal at 15%, fabric at 4% and all others at 6%.

According to interviews conducted with store planners and construction execs, the big shake out between BURs and single-ply roofs is yet to come. The use of single-ply roofing systems is relatively new to retailers and, as one supermarket chain engineering director put it, "It hasn't been around long enough to see just how long it's going to last."

Other engineering and store development execs agree that single-ply is more durable but it's also more expensive—a factor that weighs heavily against it if the building is leased and it is the lessee doing the work.

However, Brian Glass, vp at Rite Aid, Shiremanstown, Pa., points out that "as the price of oil goes up, the cost of BURs is moving up to meet single-ply." He also notes that BURs are labor intensive as compared to single-ply, and this is another factor that is helping to drive up costs.

Another major consideration when choosing a roof is the warrantee. "It is strictly the installer who guarantees the BUR, not the manufacturer of the materials. So you've got to be careful," warns Glass. "In a business where you can't be there when the work is being done, you're always going to have quality control problems."

As an example, Glass cites a situation where a roof is being installed, a sudden thunderstorm comes up and the insulation material gets wet. "Do you really think they're [the installers] not going to use that insulation?"

Ken Grieve, vp-maintenance at Grand Union, Elmwood Park, N.J., warns against the same thing. "If the specs call for putting on ¼ in. of tar, then tar paper while the tar is still hot and then another layer of tar, etc.—suppose no one is looking and the roofer leaves out a layer of tar paper? Or suppose he waits too long and the tar cools and the paper doesn't stick?"

This sort of quality control problem is common, construction execs say, and this is where single-ply roofing comes out on top. "I would recommend," says Glass, "that when putting on a single-ply roof, you get a manufacturer who will warranty it after he has a field inspector look at it." Those warranties generally range

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Cost per square foot for roof types

	Total	Discount	Drug	Supermarket	Department	Home Center	Specialty
(Mean Base)							
Single-ply membrane (42)	$2.34	$2.44	$2.35	$2.64	$2.25	$1.75	—
BUR (92)	2.04	1.91	2.18	2.28	2.43	1.50	—
Metal (27)	1.46	1.05	—	—	—	1.18	$5.50
Fabric (7)	1.25	0.75	—	—	—	1.75	—

Source: *Chain Store Age Executive* research

Lifespan of roofs

	Total	Discount	Drug	Supermarket	Department	Home Center	Specialty
(Bases)	(180)* %	(30) %	(30)* %	(30)* %	(30)* %	(30)* %	(30)* %
10 years or less	18	27	13	17	17	27	10
11-15 years	28	30	40	33	37	23	3
11-19 years	8	—	7	17	17	3	3
20 years	22	40	23	27	20	23	—
21 years +	6	—	—	7	3	20	3
Forever	1	—	3	—	—	—	—
Don't know/ no answer	18	3	13	—	7	3	80
(MEAN)	(15.9)	(15.2)	(18.4)	(15.6)	(15.6)	(16.1)	(10.7)
(MEDIAN)	(15.1)	(14.6)	(14.8)	(16.0)	(15.1)	(15.6)	(11.0)

*Does not equal 100% due to rounding. Source: *Chain Store Age Executive* research

Types of roofing

	Total	Discount	Drug	Supermarket	Department	Home Center	Specialty
(Bases)	(180)* %	(30)* %	(30)* %	(30)* %	(30)* %	(30)* %	(30)* %
BUR	51	57	70	70	43	50	17
Single ply membrane	23	13	23	47	33	17	7
Metal	15	20	7	7	—	33	23
Fabric	4	7	3	3	—	7	3
All other mentions	6	10	7	3	7	10	—
Don't know/ no answer	16	7	7	—	20	3	60

*Adds to more than 100% due to multiple responses Source: *Chain Store Age Executive* research

from 10 to 20 years, as compared to a BUR, which usually comes with a 10-year warranty that includes recoating if it's not ballasted.

A new category added to this year's census is fabric roofing, a material that has very limited retail applications and, even then, is predominantly found covering malls.

Owens-Corning Fiberglas, a leading manufacturer of the Teflon-coated fiberglass material, is seeking to change that, now that it has successful applications at two Bullock's department stores in California.

Pat Reardon, general manager at Bullock's in San Mateo, reports that because the material is translucent, "practically no artificial light is used during the day" on that portion which is covered by the fabric roof.

The building, which was constructed in 1978, was designed to accommodate a fabric roof because "at that time there was a heavy emphasis on energy conservation," says Reardon. Since then, she reports less of a leakage problem than with conventional roofing. And when there is a problem, "we just go up there and put on an iron-on patch, just like you would with a pair of jeans."

Regardless of the type of roof chosen for a particular job, experts say the success of a roof depends on planning done before the job even starts. A preroofing conference should be conducted with the contractor, the planner and either a roofing specialist, architect or engineer. ■

Looking up to design elements

For small, below eye-level merchandise, a dropped ceiling creates a "home type" feeling.

"Let's put it this way, if it weren't there it would be missed," says one store planner, explaining how a store ceiling functions as a design element.

Enthusiasm about ceilings does not run high among most planners. Only a select few have very strong feelings on the effect of the ceiling on overall presentation. Most agree with Robert Brusa, assistant vp, director store planning and construction for Ames Department Stores, Rocky Hill, Conn.: "Basically, ceiling tile is purchased on functionability. There are certain insulating qualities and acoustical benefits you look for.

"I'm not an advocate of spending a lot of money. If you just keep it nice and neat and clean, it serves its purpose."

Since it is not directly tied to selling, most planners say the ceiling should be inexpensive and functional—a description that best fits 2x4 lay-in panels, the most popular ceiling choice.

Manufacturers offer several shades to choose from and the panels are easily removed and/or replaced in the event of roof or plumbing leaks.

Despite the apparent uniformity in ceiling selection, however, a small handful of store planners wouldn't go that route if they had their choices.

"I personally feel that the ceiling is important to the overall design. But a lot of people design off the floor, not the total cubic space," says one store planner. "But the general approach here is to just put in the cheapest ceiling possible. People don't usually look up; it's just there to give ambience. So, if you're selling merchandise at eye level, you don't want to put a whole lot of money into the ceiling."

An even smaller group of store planners, particularly those involved with specialty store planning, have more leeway when it comes to selecting the design elements of a store, and "ceilings," says one such planner, "are one minute part of an entire package.

"You can't go in and address one particular item like a ceiling, a wall or a floor," he continues, "It's all got to tie together. You have ceiling transitions, floor transitions, wall transitions. Sometimes the ceiling over the escalator well may bleed over into the apparel shop and it's visible from five points on the floor. So, you have to think in three dimensions."

While he admits cost is "one of the first things you take into consideration," the overwhelming factor is what merchandise is being displayed.

"For example, intimate apparel is a very elegant space. You would not want to put anything into that space unless it had an elegant look; you wouldn't put in a lay-in ceiling or a tile ceiling," he points out. "I think that's an example of a classy selling department where you would spend more money than in a children's department or a men's department. The more expensive the merchandise, the more money is spent on that space to house it, show it, sell it."

A good deal of the importance of a ceiling is derived from its ability to house the type of lighting that will be used. "If your ceiling is not the right height or the right configuration for the space, then you've defeated everything. Because," he notes, "if the merchandise is not properly lit, then you're in trouble."

More and more store planners are turning to dropped ceilings in certain selling areas as an inexpensive method of creating focal points.

Best Products, which is upgrading the image of its jewelry department, dropped the ceiling over that area "to set it off from the rest of the showroom," explains Dawn Haddon, Best's showroom planning coordinator.

"We have a very high ceiling in the other areas of the store, so we dropped it in jewelry to give a more comfortable feeling to the department.

"When you're looking at small merchandise," she continues, "you need a lower ceiling. If you're displaying below eye level, by bringing down the ceiling you get a more 'home type' feeling."

That more intimate ambience is also being sought in the home electronics departments of various chains. One store designer explains that the home look is much more effective when displaying televisions, stereos and VCRs. ■

Cost per square foot for ceilings

Tegular 2x4 ft. lay-in panel	$2.50
2x2 ft. lay-in panel	1.75
Tegular 2x2 ft. lay-in panel	1.75
2x4 ft. lay-in panel	1.24
Plaster	1.13
Concealed spline	0.75

Source: *Chain Store Age Executive* research

Lifespan of ceilings

	Total	Discount	Drug	Supermarket	Department	Home Center	Specialty
(Bases)	(180)	(30)*	(30)*	(30)	(30)*	(30)*	(30)*
	%	%	%	%	%	%	%
9 years or less	16	13	23	17	—	20	23
10 years	24	30	20	33	10	20	30
11-19 years	23	43	23	17	33	10	13
20 years +	25	10	23	23	43	37	13
Forever	5	—	7	7	3	7	7
Don't know/ no answer	7	3	3	3	10	7	13
(MEAN)	(18.4)	(12.8)	(16.8)	(19.2)	(20.8)	(21.0)	(17.9)
(MEDIAN)	(13.6)	(12.0)	(12.9)	(11.0)	(23.0)	(17.0)	(10.7)

*Does not equal 100% due to rounding.

Source: *Chain Store Age Executive* research

Most stores adopt a mix of materials

When it comes to flooring, retailers are discovering that there is usually no single material that meets all their needs.

In the past, the 35-unit discount division of Danners installed vinyl asbestos tile floors in its 3-D stores. David Danner, vp- store planning, explains that as Danners remodels those stores, and some of its 12 variety stores, it is incorporating some carpeting in the new store design to lend a more upscale look.

In the discount division, half a dozen of the stores have had carpet installed. In those remodels, 50% of the floors are carpeted. The tiled portion of the store is done with Kentile VAT, which Danners buys for about $1 per square foot.

For the past three years, the J. C. Penney company has installed glued-down carpets in the stores it is modernizing. Frank De Sisto, design production manager, says the carpet is bought directly from Mohasco and stocked in an inventory the chain can draw from as it remodels.

As for the noncarpeted areas of the stores, Penney is moving toward ceramic tile. The appeal of that product is its low maintenance. The ceramic tile is simply mopped—it does not require buffing and polishing.

Tony Carlin, director of construction at General Nutrition, the health-food chain, says that the flooring design of his stores depends on their locations. If the store is in a mall, it's carpeted. If it is in a strip center or downtown location then vinyl asbestos tile is used—unless, says Carlin, "It's in a Beverly Hills-type operation."

The only segment of the mall stores which is not carpeted is a small aisle near the refrigeration units in the back of the 1,500 sq. ft. stores. What type of carpet is laid in the stores varies greatly according to local health rules. "We're in a different circumstance from clothing stores," says Carlin. "Local health departments require this type of carpet or that since we sell food."

Generally speaking, these health requirements do not drive up the price of the carpet. That only happens in upscale malls when "the landlord requires us to put in $20 a yard carpeting," says Carlin.

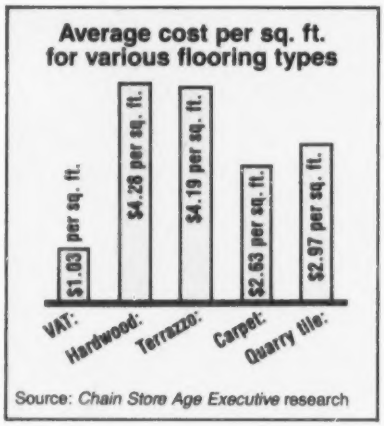
The average price of the carpet is around $10 per square yard, with a five- to seven-year lifespan.

The tile is either Armstrong or Azrock and is purchased in truckload lots. It costs 30¢ to 50¢ per square foot to have it installed by contractors, which is about the same as the cost of installing carpeting.

Type of flooring used

(Bases)	Total (180)* %	Discount (30)* %	Drug (30)* %	Supermarket (30)* %	Department (30)* %	Home Center (30)* %	Specialty (30)* %
VAT	46	63	60	83	3	60	7
Carpet	43	43	23	—	87	10	97
Quarry tile	12	10	3	33	17	—	7
Hardwood	7	3	—	—	30	3	3
Terrazzo	3	3	3	7	3	—	3
Vinyl	9	13	7	7	10	17	3
Other mentions	12	3	10	10	20	27	3

*Adds up to more than 100% due to multiple responses Source: *Chain Store Age Executive* research



Source: *Chain Store Age Executive* research

Bradford Bright, director of store merchandise for Payless Cashways, takes advantage of some of Payless' product line in the flooring of that chain's kitchen departments. But mainly, the stores are floored in a vinyl composition tile, 12 in. by 12 in., and 3/32 of an inch thick. The cost of the tile including installation is 90¢ per square foot, according to Bright.

In addition to carpeted kitchen vignettes, which cross-merchandise some of Payless' carpet lines, Bright is thinking of putting in some 12-ft. by 15-ft. hardwood floors in the kitchen department. The scheme calls for Hartco to subsidize the cost of flooring in stores that sell their product. The estimated cost of these "demonstration floors" will be about $500 to $600 per store. ■

SECURITY

Employees as crime-stoppers

Anyone attempting to pull off "the biggest little crime in America" at a Perry Drug Store better beware of coming up against Perry's Army because it's looking to "Clobber the Robber and Reap the Reward."

The crime in question is shoplifting; the army is Perry's employees. And "Clobber the Robber and Reap the Reward" refers to a program that rewards Perry's employees for information leading to the apprehension and prosecution of shoplifters.

Employee involvement programs for store security are winning favor among retailers in all retailing sectors. "The better security programs are those which include employees as a deterrent to theft," reports Charles Miller, president and owner of Loss Prevention Systems, Atlanta.

"The more you include employees in your security program, the less likely those employees are to steal from your store. Once they feel they are part of the program and not part of the problem, you get much greater cooperation. There is a natural tendency to be a little more honest," he says.

William Krupka, assistant vp for corporate security at Perry Drug, can attest to that. A recent call to the head of Perry's Army revealed an anecdote

about an incident only the night before in which an alert employee helped prevent a robbery.

Besides "Clobber the Robber," Perry also sponsors a silent witness program where a reward is paid for any information that leads to the arrest and conviction of anyone caught stealing.

Store security committees which meet quarterly are responsible not only for indoctrinating new employees into the program, but also for pointing out security deficiencies and identifying the causes and solutions for shortages.

While shoplifting by customers is the most publicized form of retail theft, Loss Prevention Systems' Miller believes that employee theft represents a greater dollar loss than shoplifting. While he admits there is a lack of hard statistics on the subject, he estimates that the average shoplifting loss in a supermarket is $12 per incident based on the value of what is usually recovered. "But when we apprehend an employee," he reports, "the actual recovery is 10 to 15 times higher on the average."

He explains the disparity between the figures by pointing out that the employee has firsthand knowledge of the company's strengths and weaknesses, plus the added temptation of working around money and merchandise all day.

As a way around both shoplifting and employee theft, many stores are turning to a combination of electronic article surveillance (EAS) systems along with plain clothes security guards. The EAS systems deter shoplifting while the guard can concentrate on employee pilferage.

Andrew Suntup, director of marketing for Knogo, Hicksville, N.Y., a manufacturer of a variety of EAS systems, admits that "The whole purpose of a system is not to actually catch a shoplifter, because then the store has to pay to take him to court; the merchandise would have to be held as evidence, and if it is something seasonal, you'd miss your seasonal period and the merchandise would wind up just lying around.

"The whole purpose is to deter the shoplifter, to show that the merchandise in the store is protected, therefore you wouldn't want to take a chance stealing from this store because you will get caught."

The large plastic disks or strips applied to soft goods act as their own warning that a system is in effect, says Suntup. Yet, some of the newer electromagnetic devices are not visible once applied.

Asked how the systems help prevent employee pilferage, Suntup explains, "While we are reducing the shoplifting theft your shrinkage will go down a certain per cent. Therefore, once shoplifting has been cut out, any rise in shrinkage or an overwhelming amount of shrinkage would then indicate the merchandise is being taken by employees. So your security people can concentrate on employee theft while the system will catch shoplifters."

Estimates put the average shoplifting loss in a supermarket at $12, based on what is recovered

Not every store, however, can afford the expenditure on an EAS system or a plainclothes detective. Instead they rely on common sense controls, controls that can also be used to augment any system's effectiveness.

According to Miller, certain "favored items, small, easily concealed merchandise such as batteries, film, cigarettes, camera accessories," should be sold in an open area, preferably the front of the store.

Poorly lit areas, blind areas or concealed areas should also be avoided in the store planning stages.

High piling or stocking of any kind of merchandise also tempts thieves, says Miller, because it gives people the feeling they are in a private area.

As additional robbery deterrents, Miller suggests keeping available cash to a minimum. "When your register reaches that limit, pull the cash.

"Make frequent trips to the bank, preferably by armored car. If no armored car is available, make bank deposits at different times of the day, each day, and use at least two or three different routes to the bank in order to avoid any sort of pattern that could be detected by a professional robber."

Miller also advises that night deposits be avoided whenever possible. "If you can't avoid them," he continues, "circle the bank to make sure there are no suspicious loiterers; use two persons and preferably two different cars in the event that the car carrying the money is robbed."

And finally, he advises retailers never to exceed their insured limits when carrying cash. ■

Cost per square foot for security systems

	Total	Discount	Drug	Supermarket	Department	Home Center	Specialty
(Bases)	(172)	(30)*	(29)*	(30)	(26)*	(30)	(27)*
	%	%	%	%	%	%	%
Less than $0.15	30	23	38	30	15	37	37
$0.15-$0.25	26	40	17	27	27	27	15
$0.26-$0.50	12	10	10	17	19	3	15
$0.51-$0.75	2	3	7	3	—	—	—
$0.76-$1.00	5	—	—	—	12	13	4
$1.01-$2.00	2	—	—	—	8	—	4
$2.01+	2	3	—	3	—	—	4
Not applicable	4	—	3	7	8	7	4
Don't know/ no answer	13	20	14	13	—	13	18
Refused	4	—	10	—	12	—	—
(MEAN)	(0.30)	(0.28)	(0.21)	(0.29)	(0.44)	(0.26)	(0.37)

*Does not equal 100% due to rounding. Source: *Chain Store Age Executive* research

Lifespan of gates and locks

	Total	Discount	Drug	Supermarket	Department	Home Center	Specialty
(Bases)	(180)	(30)*	(30)*	(30)	(30)*	(30)	(30)*
	%	%	%	%	%	%	%
2 years or less	19	33	20	3	7	33	20
3-5 years	20	13	23	37	13	27	7
6-10 years	21	13	23	17	17	17	37
11 years or more	17	23	10	13	27	13	17
Forever	4	3	—	7	—	3	10
Don't know/ no answer	19	13	23	23	37	7	10
(MEAN)	(12.3)	(11.5)	(6.6)	(16.0)	(11.1)	(9.4)	(18.7)
(MEDIAN)	(6.3)	(5.2)	(5.4)	(5.9)	(9.5)	(4.5)	(8.5)

*Does not equal 100% due to rounding. Source: *Chain Store Age Executive* research

Striving for the wet look in floor care

Gemco, the 77-unit discount department store chain operated by Lucky Stores, is revamping its floor-care program to keep pace with changing technology in the floor maintenance industry.

Specifically, Gemco is upgrading the machines it uses to polish the Buena Park, Calif.-based chain's vinyl tile floors by introducing 2,000-rpm, high-speed burnishers, explains Gemco purchasing agent Bonnie Johnson.

"The decision was made that to achieve the so-called wet look we want, it requires a high-speed burnisher," says Johnson. "It achieves a high gloss look on the floor. You get a shiny floor for less money."

A year ago, 2,000-rpm burnishers were virtually unheard of in the retail industry. The industry standard was a 1,000-rpm burnisher. Now, most manufacturers are developing the faster burnishers, which burnish the floor to a harder finish, allowing the shine to last longer. Because it moves faster, labor costs are lower. Labor accounts for 90% of floor maintenance costs.

Clarke, of Muskegon, Mich., introduced the Ultra Speed 2000 last October. Its two models are battery-operated, with a list price of between $4,000 to $5,000.

Advance of Spring Park, Minn., has a Whirlamatic 2000, a battery operated 2,000 rpm model which Gemco is using in its stores.

Kent of Elkhart, Ind., introduced a 2,000 rpm electric floor burnisher, its KF 2000E, in March at SPECS in Philadelphia. Kent's national sales manager, Leonard Nelson, says these ultra high-speed machines open up a "whole new ballgame."

Meantime, the debate continues over the merits of using in-house maintenance crews vs. contracting the job to outside janitorial services.

At American Building Maintenance, based in San Francisco, company officials maintain that outside contracting is a more cost-effective approach than in-house cleaning.

"We're motivated to do a better job," says Allen Lee, manager of the San Francisco Bay Area retail stores accounts. He says that some retailers, particularly in the supermarket industry, prefer in-house cleaning crews because during early morning hours they are also stocking shelves and believe that "they get better scheduling control even though it is cheaper to use contractors—they don't have the flexibility. We can be flexible on a week-to-week basis, but not night-to-night."

One Bay Area department store chain, Emporium Capwell, has used an outside janitorial service "exclusively for the last 10 years," according to a spokesman.

"We choose to use contractors for the simple reason that they are better able to stay abreast of changing technology," says Ken Sheldon, communications manager. ■

Lifespan of floor maintenance equipment

	Total	Discount	Drug	Supermarket	Department	Home Center	Specialty
(Bases)	(180)*	(30)*	(30)*	(30)*	(30)*	(30)*	(30)*
	%	%	%	%	%	%	%
4 years or less	23	23	23	23	7	23	37
5 years	22	10	23	23	33	13	27
6-10 years	20	30	13	30	13	27	7
11 years or more	4	3	7	—	3	3	7
Not applicable	15	13	20	3	23	20	10
Don't know/ no answer	17	20	13	20	20	13	13
(MEAN)	(5.7)	(6.2)	(5.8)	(5.4)	(6.3)	(6.0)	(5.0)
(MEDIAN)	(5.5)	(6.0)	(5.4)	(5.6)	(5.6)	(5.8)	(5.1)

*Does not equal 100% due to rounding. Source: *Chain Store Age Executive* research

Cost per square foot for floor maintenance

	Total	Discount	Drug	Supermarket	Department	Home Center	Specialty
(Bases)	(157)*	(29)*	(21)*	(29)*	(20)	(28)*	(30)
	%	%	%	%	%	%	%
Less than $0.15	50	34	52	41	35	75	60
$0.15-$0.25	15	10	19	17	25	11	10
$0.26-$0.50	8	17	—	3	20	7	—
$0.51-$0.75	3	14	—	—	—	4	—
$0.76-$1.00	2	3	—	—	10	4	—
$1.01-$2.00	2	—	—	—	—	—	10
$2.01+	1	3	—	—	—	—	3
Not applicable	5	—	10	7	10	—	7
Don't know/ no answer	13	17	19	31	—	—	10
(MEAN)	(0.25)	(0.38)	(0.12)	(0.13)	(0.27)	(0.17)	(0.36)

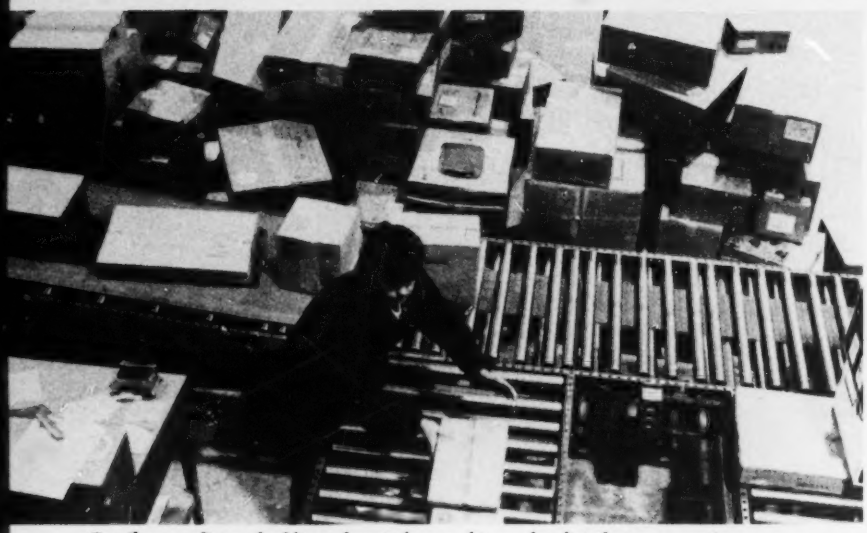
*Does not equal 100% due to rounding. Source: *Chain Store Age Executive* research

Updating vital to growth

The distribution systems of retailers are the nitty-gritty of their operations. If there's "nothing really new in materials handling" itself, as one retail distribution expert put it, there is nonetheless a need for constant improvement in distribution plants and equipment.

In recent years the distribution portion of total capital expenditures in the retail environment has grown in line with management's view that the distribution function is an increasingly vital strategic advantage. In fact, retailers have predicted almost a doubling of capital expenditures for distribution over the next two years, according to a *Chain Store Age Executive* study (June 1983).

Illustrative of the work being done



Retailers predict a doubling of capital expenditures for distribution over the next two years.

in the retail climate are some of the recent improvements in Heck's distribution system. According to Bob Griffiths, vp-warehousing and distribution, the company's main distribution center (350,000 sq. ft.) has had a complete refurbishing this year.

Tow lines, flow racks and new conveyor belts made by Bushman were installed. The shelf-goods pricing area was revamped. A new soft goods processing area was added and climate-control equipment was installed in the 30,000 sq. ft. soft goods section of the center.

While Griffiths does not disclose the cost of these improvements, with further improvements in plant and systems planned for the next three years, he does project the payback on these capital expenditures at six to eight months. In some cases the equipment is already showing a payback.

Heck's is also mapping out new computerized controls to manage purchase orders. The goal is to track every carton from vendor to store in a manner similar to what is done at Wal-Mart or Ayr-Way—two companies where Griffiths worked prior to joining Heck's last August. The purchase order management system will be run on headquarters' IBM 3764 twin units, and Griffiths expects the system to be up before Sept. 1 in time for the fall rush.

Towers Department Stores of Ontario, Canada, a 48-unit chain, has been concentrating its efforts on software to improve the exchange of information between distribution center and headquarters' mainframe to plan labor functions more efficiently, according to John Share, vp-distribution and warehousing.

Since Towers adopted the "push" system, where all merchandise is distributed through buyers and nothing is ordered directly by the store personnel, the subsequent tracking of units being sold at the store level has created more efficient ordering.

When deliveries to the distribution center were stepped up, vendors and carriers found their delivery appointment times were sometimes backed up for weeks.

From one expanded center in California, J. C. Penney expects to realize a 23% return on investment

"Slot transfer" reports were developed through Tower's MIS department to give warehouse managers an up-to-the-minute status report on space availability at the warehouse. This has made workers more productive since no one has to walk the floor to look for available space to place shipments in. Shipments can be adjusted well in advance of incoming shipments, trucks are not kept waiting and vendors can make delivery appointments in peak periods without long waits.

Share is now working in conjunction with Tower's systems development people to design software that will forecast labor requirements for order picking three days out to provide more efficient worker scheduling and avoid unnecessary overtime payments.

J. C. Penney has an addition to one of its distribution centers under construction in Buena Park, Calif., that will expand the existing 700,000 sq. ft. structure by 350,000 sq. ft. This is a multipurpose facility which serves all southern California stores and provides selected functions for national distribution. Michael Todres, director of distribution, explains that Penney expects a 23% return on investment from this project.

In 1985, J. C. Penney plans to add about 150,000 sq. ft. of distribution capacity in New Jersey. The site has not yet been finalized.

Penney has optical scanning at its six catalog distribution centers and the company is installing scanning at other distribution locations as "time and money permit," according to Todres. "In under three years, we'll have scanning in all our facilities," he says.

Todres explains that Penney uses laser scanners. The suppliers of scanners change frequently to keep pace with improvements in equipment. ■

REFRIGERATION

Changing with the times

Refrigeration, like every other area of the supermarket business, is continuing to undergo enormous alterations, reflecting changes taking place in the philosophies and goals of many supermarket operators.

For example, responding to the move to new store formats and to a greater emphasis on using store decor to convey distinctive market images, new styles of cases and fixturing are showing up in many chains.

At the same time, though, both suppliers of equipment and retailers remain well aware of the continuing need to cut down on the energy costs associated with refrigeration wherever possible. After all, it is estimated that refrigeration costs account for as much as 40% to 50% of a supermarket's energy bill, while utility rates continue to rise rapidly.

When it comes to the decision to purchase equipment, "I think that energy usage is still an obviously important part of the purchase decision," says Doug Aiken of Warren-Shearer. "However, we also see a desire by retailers to become individualized, including using 4-ft. cases and other smaller cases."

This trend is even noticeable among the national chains. "When it comes to the design and decor area,

rather than taking a cookie-cutter approach, they are becoming more concerned with determining how a particular market can best be served and planning their individual stores accordingly."

As a result, "We are doing a great deal more custom business today," he observes. This certainly adds to the cost, "But in effect, they are putting more fixtures into the stores now, so the costs are more anyway. They are also willing to pay more for the equipment."

In addition to form, the energy function continues to be important, too. However, Aiken points out that when it comes to the equipment itself, "The big advances were actually made three or four years ago with solid-state controls, solid-state exposure valves, and so forth. But we are continuing to search for other ways to reduce energy consumption."

When it comes to store formats, the biggest changes in refrigeration equipment in terms of store decor appear likely to show up in the super-warehouse stores, according to many industry observers. However, Mike Matson of Cub Foods says that in laying out the store, "When it comes to the fixtures or cases, nothing we do is very different from what you would do in another type of operation."

There are differences, though, when it comes to accommodating the high-volume done by such units—"high volume in terms of both product and heavy traffic flow." For example, Matson points out that "The fixtures get a lot of abuse, so we have put in corner guards, rub rails and various other reinforcements.

"In the produce section, because of the way we mass merchandise the produce at the front of the cases, we asked our equipment suppliers to especially reinforce this area for us."

The high volume situation also has an impact on energy needs of the various systems, points out Matson. "In the walk-in door area, because of the high product flow, we took the numbers recommended for heavy-usage areas and added another 20% to come up with the cooler load. We really beefed up our evaporator coils to handle the additional load." Cub Food stores also "incorporate oversized air duct condensers to insure that the equipment runs up to maximum efficiency in the hottest weather that it may be exposed to," he says.

Matson and the Cub Foods team "have taken a number of steps to design and work with manufacturers to come up with more energy efficient systems," he adds. Most of the equipment has been purchased from Tyler Refrigeration with Cub presently using their NC-2 system (an ambient subcooled refrigeration system). Most of the compressors are from Copeland.

At Milgram Foods, James Fenton, director of engineering, notes that in the area of energy conservation applied to refrigeration, "We are going with uneven parallel compressor systems as most of the industry appears to be doing." He is also using discus-body compressors "and these are showing significant savings in energy." He is even retrofitting some systems with these "and they are working well. They reduce horsepower and they also reduce operating costs."

When it comes to changing the look of the fixtures being used, "We are talking about doing something different in fish, using some of European-look cases and also in some areas of the deli. We are presently doing three new stores and it is likely that in at least one we will move in this direction." ■

Estimates place refrigeration costs at 40% to 50% of supermarkets' energy bills.

Cost per square foot for supermarket refrigeration

	(Base)	(30)*
		%
Less than $5.00		33
$5.00-$7.50		7
7.51-$10.00		20
$10.01-$15.00		10
$15.01-$20.00		3
More than $20.00		3
Not applicable		10
Don't know/no answer		13
(MEAN)		(8.24)

*Does not equal 100% due to rounding.
Source: *Chain Store Age Executive* research

Lifespan of refrigeration cases

	Total	Drug	Supermarket
(Bases)	(60)	(30)	(30)*
	%	%	%
8-10 years	42	27	57
11 years or more	28	20	37
Forever	2	3	—
Don't know/ not applicable	28	50	7
(MEAN)	(13.5)	(17.8)	(11.2)
(MEDIAN)	(9.5)	(10.3)	(9.1)

*Does not equal 100% due to rounding.
Source: *Chain Store Age Executive* research

HVAC

Cooling the cost of energy

Energy engineers are keeping a close eye on fine-tuning HVAC equipment to keep energy bills—a business expense as certain as death and taxes—from ballooning.

Cub Foods, the 16-unit supermarket chain, heats and air-conditions all its northern Midwest stores (unlike some other retailers in this area). The 70,000-sq.-ft. stores use custom-designed equipment from two suppliers—Seasons Four and Mammouth. Cub has been working with these suppliers for two years with good results, according to Don Convy, manager, construction and technical services.

He adds that when Cub Foods first approached manufacturers to work with the chain on designing custom HVAC systems most didn't want to take the time to get involved.

Lifespan of HVAC

	Total	Discount	Drug	Supermarket	Department	Home Center	Specialty
(Bases)	(180)	(30)	(30)*	(30)	(30)	(30)*	(30)
	%	%	%	%	%	%	%
9 years or less	16	10	17	13	10	27	20
10-11 years	23	30	23	17	7	27	37
12-14 years	11	7	13	10	13	17	3
15-19 years	16	20	33	13	10	10	10
20 years+	22	27	3	40	37	10	13
Forever	2	3	—	7	3	—	—
Don't know/ no answer	10	3	10	—	20	10	17
(MEAN)	(15.7)	(17.1)	(11.6)	(21.4)	(21.2)	(11.0)	(11.6)
(MEDIAN)	(13.6)	(15.4)	(13.1)	(18.8)	(20.0)	(11.4)	(11.2)

*Does not equal 100% due to rounding. Source: *Chain Store Age Executive* research

Cost per square foot for HVAC

	Total	Discount	Drug	Supermarket	Department	Home Center	Specialty
(Bases)	(159)*	(29)*	(25)	(30)	(25)	(28)*	(22)*
	%	%	%	%	%	%	%
Less than $0.15	7	10	—	7	4	18	—
$0.15-$0.25	12	10	12	3	12	28	5
$0.26-$0.50	6	3	4	3	4	11	9
$0.51-$0.75	6	3	4	7	4	11	5
$0.76-$1.00	8	17	8	3	4	4	9
$1.01-$2.00	16	10	20	17	20	18	9
$2.01+	34	31	40	53	32	11	36
Not applicable	4	—	4	7	12	—	4
Don't know/ no answer	8	14	8	—	8	—	23
(MEAN)	(1.32)	(1.24)	(1.51)	(1.65)	(1.47)	(0.71)	(1.52)

*Does not equal 100% due to rounding. Source: *Chain Store Age Executive* research

The new equipment is running smoothly, reclaiming heat from refrigeration units, and Cub is committed to the program. The manufacturers now "come knocking at our door," says Convy, because they see that there is a market for custom work.

The rooftop equipment costs an average of $90,000 per store, according to Convy, and the payback is about two years. The main reason the equipment has been custom-designed is so that it will work in harmony with the chain's energy management program. The custom equipment heats and cools 70% of the stores' main sales areas.

Convy says that it's still too early to measure the operating cost of the new equipment, but the chain is continuing to install it rapidly in all stores. By the end of the year all the Cub Food stores will have the new HVAC equipment and the oldest system will be a unit installed in 1981.

B. Dalton has installed a new air-conditioning system from Trane at many of its stores in recent months. According to Rex McKee, director of store services and construction, when B. Dalton can select the air-conditioners for the store is especially critical to its effort to stem energy costs since this is one of the few energy-related areas it can control. In most mall operations, he explains, B. Dalton "is at the mercy of the developer."

The Trane units are priced at approximately $10,000 to $13,000 per store. McKee points out that purchase price was not the primary consideration. A good service record and on-time delivery were part of the attraction of the Trane units. Further, Sure-Air, B. Dalton's air-conditioning maintenance contractor, had recommended the Trane system as a low-maintenance buy.

New equipment being used at Heck's is reducing the stores' heating and cooling bills by one-third

Gold Circle has just completed a major revamping of its HVAC system, according to Daniel O'Harra, vp-properties and administration. The chain has installed Honeywell W7000 microprocessors at all its stores. The units regulate electricity, heating and air-conditioning. These "economizers" draw in outside air and cut back the number of hours that air-conditioning is required.

The system, which was installed chainwide in a year, is already decreasing the use of air-conditioning at Gold Circle. It will pay for itself in about 2½ years, according to O'Harra.

Ben Shew, energy coordinator at Heck's, runs a program to update existing HVAC systems and outfit new stores. The equipment Heck's installs is heat pumps made by Carrier. The average cost per store is $40,000 per 40,000-sq.-ft. store.

Shew says, "We figure in three years, we'll get our money back." The payback period for resistance or electrical heat systems would be much longer.

At present about 10% of the stores in Heck's 112-unit chain are using the new equipment. So far the new Carrier units have proved extremely efficient. "They reduce heating and air-conditioning bills by one-third," says Shew.

Heck's conducted computerized building energy estimation analyses to aid in selecting the HVAC equipment and to fine-tune the system after the first Carrier units had been in place for a while. The software for the evaluation came from three sources.

Carrier did one study. Trane did another, but Shew said that most weight was given to an analysis run by the local utility—Appalachian Power. The utility program analyzed more variables than the others, including the status of insulation in the stores.

With the addition of insulation, Heck's was further able to refine its HVAC systems. While still using Carrier heat pumps, the chain switched to buying more efficient models. The aim was to influence operating costs although the initial selection was based on purchase costs. The results have been pleasing, according to Shew, especially since it isn't often in business that fixed costs can be reduced.

Genuardi, a 20-unit supermarket chain headquartered in Norristown, Pa., has installed HVAC systems designed to reclaim heat from refrigeration units. "About 50% of the stores have heat reclaim," says Larry Gallagher, engineer, who specifies York equipment to update HVAC systems.

The York systems recirculate air through coils on the rooftop units. The size of the units varies from location to location, but the average cost to outfit a Genuardi store is between $26,000 and $30,000.

The payback period is about five years, but shortens with heat reclamation. York was selected for its good service record and the ease with which parts can be obtained. ■

Cash for corrugated offsets hauling costs

Solid waste management has never been a high priority item on a store planner's list. Traditionally a nonrevenue-generating support system, solid waste disposal is considered a necessary evil, literally relegated to the backroom.

However, with the advent of strict pollution control standards and a heavy emphasis on recycling in recent years, store planners have had to come up with alternatives to incineration for dealing with trash disposal. Balers, compactors and dumpsters have long since replaced incinerators at most store locations.

Each system, however, presents its own set of problems.

Because trash in a dumpster is not compacted in any manner, this means more pickups by the hauler and costs can run high. If space requirements dictate that the dumpster be located outside, this invites employee pilferage. Also, no money is recovered through recycling because a recycler will not accept corrugated unless it is baled or compacted.

Consequently, the majority of retailers recently surveyed by *Chain Store Age Executive* have opted for compactors used in tandem with balers. The balers are strictly relegated to recyclable corrugated, while the compactor is for nonrecyclable waste.

While an improvement over the use of a sole dumpster, some retailers still voice complaints about the baler-compactor method.

One retailer has found a better way to handle solid waste—and has the figures to prove it

The typical corrugated bale produced at a store location may weigh up to 800 lb. Usually a truckload of bales are accumulated before the hauler makes a pickup in order for the recycling to be cost-effective.

Due to limited backroom space, often bales must be stored outside, again opening up the likelihood of employee pilferage, as well as damage due to weather.

In addition, baling can be highly labor intensive, some retailers point out, requiring not only the operation of the machine but the handling that comes afterward.

One retailer contacted, however, thinks he has found a better way and has the bottom line figures to prove it. Boyd Sempel, construction manager at Payless Drugs, Wilsonville, Ore., is recovering the cost of his solid waste management program through his recyclable corrugated sales.

Sempel has all but abandoned the baler in favor of compactors. Although he has inherited balers with the acquisitions of new chains, the only new solid waste equipment being purchased are compactors.

"Balers are far more labor intensive than compactors," he observes. "You have to hand feed both, but with the compactor all you have to do is push a button and, unless there's a jam, that's the last you worry about it.

"With a baler, you have to wire off the bales when the baler gets full; you have to handle the bales, and the bales are constantly in the way. If you put them outside, then depending on the weather, they may get wet. If they don't get wet, they get stolen." Sempel points out that at $50 to $60 a ton, "Stealing bales is big business."

Because a compacted container holds far more than a bale (six tons vs. 800 lb.), Payless only needs a hauler three times a month.

As it is, Payless is one of a limited number of retailers who are using compactors for corrugated. Some chains, like Supermarkets General's Pathmark, claim that the baler-compactor combination can be very efficient.

According to a spokesman for the company, Pathmark does very well by "speculating on the corrugated market." The chain uses its own haulers to bring baled corrugated back to a central distribution center. It is kept there until a hauler takes it to the recycling center.

Pathmark will hold onto the corrugated if the selling price is too low, accumulating bales until the price goes back up. If the price is not expected to rise, then the chain will go ahead and sell what it has. ■

Cost per square foot for solid waste management

	Total	Discount	Supermarket	Home Center
(Bases)	(90)*	(30)	(30)*	(30)
	%	%	%	%
Less than $0.15	31	33	13	47
$0.15-$0.25	17	23	17	10
$0.26-$0.50	20	17	23	20
$0.51-$0.75	4	—	13	—
$0.76-$1.00	1	—	3	—
$1.01-$2.00	2	3	3	—
$2.01+	1	3	—	—
Not applicable	7	6	10	6
Do not have/use garbage pick-up	8	3	3	17
Don't know/no answer	8	10	13	—
(MEAN)	(0.30)	(0.33)	(0.40)	(0.18)

*Does not equal 100% due to rounding. Source: *Chain Store Age Executive* research

Lifespan of balers, compactors and incinerators

	Total	Discount	Drug	Supermarket	Department	Home Center
(Bases)	(120)*	(29)	(17)*	(29)	(30)*	(15)*
	%	%	%	%	%	%
9 years or less	12	17	6	24	—	7
10-14 years	26	31	47	28	7	27
15-19 years	14	14	18	14	10	20
20 years or more	28	21	12	10	57	27
Forever	2	—	—	7	—	—
Not applicable	3	—	—	3	—	14
Don't know/no answer	16	17	16	14	27	7
(MEAN)	(17.2)	(13.4)	(12.8)	(18.7)	(24.1)	(14.9)
(MEDIAN)	(16.0)	(13.9)	(13.8)	(13.1)	(47.2)	(16.7)

*Does not equal 100% due to rounding. Source: *Chain Store Age Executive* research

Investments showing fast payback

There are few investments that retailers can make which have so quick, dependable and measurable a payback as energy management systems. That's why they spent a mean average of 44¢ per square foot for energy management devices in the last year, with supermarkets—and their host of perishables—leading the pack at 63¢ per square foot.

Supermarkets represent both the biggest challenge and the biggest opportunity in terms of energy management. They're the biggest challenge because of the complexity of their energy use—for heat in the winter, air-conditioning in the summer and refrigeration all year round.

But they're the biggest opportunity because their energy bills are higher (per square foot) than those of other retailers and there's more room for improvement. In fact, some estimates place supermarket electricity costs alone at 1% or more of sales volume—a tremendous burden in an industry where a net profit of 1% of sales is a mark to shoot for.

Take the case of Genuardi Super Markets, Norristown, Pa. The company was able to cut electricity costs 23% just by reducing lighting use in three of its 18 stores with a device called the Controller from FLEC Systems. Since the devices were intalled, says Reinhold Schottle, facilities manager for Genuardi, energy savings for the three stores amount to nearly $16,000 annually, and a payback for the chain's investment occurred in about 18 months.

The cost of the equipment and installation was about $22,000 for all three supermarkets. The Controller, says Schottle, works as a circuit wattage reducer and has been installed on existing standard ballasts. It has cut wattage 25% to 50% by delaying the time the voltage is applied, since it's installed between the circuit breaker and the lighting load, but peak voltage to the ballast is maintained.

The Controller also reduces demand and air-conditioning load. Since less wattage in lighting produces less heat to be cooled, the savings in air-conditioning is generally calculated at one-half watt saved for every watt reduced in lighting.

But outside the supermarket industry, the payback is still pretty quick. Fishers Big Wheel, for instance, is in the process of installing Honeywell W7000 load control systems chainwide, and the retailer is experiencing an average payback of under two years in "normal" stores.

Fishers Big Wheel uses Honeywell W7000 load control systems in 29 of its stores.

Lifespan of energy management hardware and software

	Total	Discount	Drug	Supermarket	Department	Home Center
(Bases)	(128)	(30)*	(26)	(25)	(26)*	(21)
	%	%	%	%	%	%
5 years or less	16	17	19	12	8	24
6-9 years	18	17	12	36	12	14
10-19 years	20	23	15	16	19	28
20 years or more	11	17	4	8	8	19
Forever	4	7	—	12	—	—
Not applicable	13	3	23	—	35	—
Don't know/ no answer	18	17	27	16	19	10
(MEAN)	(15.6)	(18.7)	(8.1)	(22.8)	(11.3)	(11.4)
(MEDIAN)	(12.1)	(15.8)	(8.0)	(8.7)	(10.0)	(13.0)

*Does not equal 100% due to rounding. Source: *Chain Store Age Executive* research

When Fishers Big Wheel first tested the load control system, however, it was in "worst case" situations, according to Albert Agostinelli, senior vp and cfo. Those first installations resulted in energy savings of $8,000 a year—a six-month payback on the devices, which cost $4,000 per installation.

Energy savings for three stores comes to $16,000 annually; payback occurred in 18 months

But well before deciding on an energy management system, says Agostinelli, the company made an effort to pare down energy costs through other measures. "We saw a need to redesign the total environmental package in the stores," he says. "We did our homework and approached the project cautiously. We looked at heating, lighting, ventilation and air-conditioning; insulation of roofs and walls, and load control panels."

Air-conditioning in new-store construction, says Agostinelli, averages 90 tons, compared with 130 tons in older stores. (The average store size is about 45,000 sq. ft.) The equipment in the older buildings was oversized. New stores now have six main air-conditioning units and four auxiliary units. Forty-one of the 69 Fishers Big Wheel department stores are heated with gas.

The next step was to make noncapital energy conservation changes. "We made our managers energy-aware," says Agostinelli. "They had check lists. For example, they were told not to turn all lights on at once."

Agostinelli looked around for several years, he says, before he chose the W7000 system. "The total cost for the package was half that of other

Cost per square foot for energy management

	Total	Discount	Drug	Supermarket	Department	Home Center
(Bases)	(141)	(29)	(27)	(30)	(26)	(29)
	%	%	%	%	%	%
Less than $0.15	29	45	26	10	19	45
$0.15-$0.25	13	21	11	3	23	7
$0.26-$0.50	14	14	11	17	23	7
$0.51-$0.75	6	3	11	10	4	—
$0.76-$1.00	8	—	4	27	—	7
$1.01-$2.00	3	—	—	10	4	—
$2.01+	4	10	11	—	—	—
Not applicable	16	—	19	20	19	24
Don't know/ no answer	7	7	7	3	8	10
(MEAN)	(0.44)	(0.42)	(0.62)	(0.63)	(0.32)	(0.20)

*Does not equal 100% due to rounding. Source: *Chain Store Age Executive* research

companies," he notes. But cost was not the only criterion on which he based his decision. "I knew Honeywell," says Agostinelli. "I didn't want to deal with a company that had a taillight guarantee" (a guarantee that is good only as long as the taillights of the delivery truck are in sight).

To date, 29 of the load controllers have been installed, and an additional five to 10 controllers are installed each year. In the first 18 installations, cost avoidance of demand charges averaged $378 per month. The average annual demand in existing stores was reduced 25%, when compared with demand in the year prior to installation, and new stores equipped with the load control devices are exhibiting annual demand levels 25% lower than those in existing "systemless" stores of comparable size.

Perhaps the most impressive example of demand reduction was in the Fishers Big Wheel store in Carrolltown, Pa., where Penelec, the local utility, presented the outlet with an energy responsibility award. In this store, demand was cut by 30% from February through November, when compared with the same period the year before. The W7000 there was used for demand control and time-of-day programming only, as duty cycling was not applicable in that building, according to a spokesman for Honeywell.

How does Fishers Big Wheel's expenditure fit in with the rest of the discount store industry? On the whole, discounters spent a mean of 42¢ a square foot on energy management systems last year; Fishers Big Wheel spent less than 10¢.

Convenience stores, of course, are pretty much in the same boat as supermarkets, in that heating, air-conditioning and refrigeration are complex problems. The approach taken by Southland Corp., the country's largest operator of convenience stores, has been to test priority schedulers—which sense incoming power and turn off loads when the demand level hits a preset point. The devices in use in Southland's 7-Eleven stores in the Denver area are Model 836 units from Dencor Energy Cost Controls, Englewood, Colo. (*Chain Store Age Executive*, April 1984).

Each Model 836 retails for about $680. Some 50 of the devices were installed in the fall of 1983, and while none of the units has paid for itself yet, says a Southland exec, they're expected to do so in as little as 12 to 18 months.

According to Dick Bressler, Dencor's 7-Eleven liaison, Southland began conducting in-house tests of the devices early in 1981. Two and a half years of experimentation involved two different models at six 7-Eleven stores, and the 836 was found to be the more effective device from Southland's standpoint.

But one of the most advanced energy management programs is still boasted by Woodward & Lothrop, where execs say that the salaries of the chain's entire engineering department—some 30 strong—are balanced out by the electrical energy savings each year (compared to the sum the chain spent on electricity in 1979). According to Ben Bowers, energy conservation supervisor, many of Woodward & Lothrop's stores now use less than half of the electricity they consumed 15 years ago.

Nor have Bowers and Burton Weller, manager of utilities for the 16-store operation, achieved expense reductions with costly hardware. Years ago, for example, the engineering staff began to install electronic ballasts that regulate lighting voltage to reduce consumption. According to Weller, each store needed 800 to 1,000 ballasts and each ballast cost $20 or so. Payback was achieved in about a year. ■

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